

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A system for monitoring and processing signal parameters acquired from a patient in multiple operational modes and housed as a portable monitoring unit, comprising:

a data acquisition processor for receiving and processing patient parameter data from a plurality of different patient attached sensors to provide processed patient parameter data;

an image reproduction device for displaying processed patient parameter data;

a communication interface for communicating said processed patient parameter data to:

said image reproduction device for display in a first mode;

a docking station when said portable monitoring unit is docked in said docking station in a second mode; and

a central monitoring station remotely located from said monitoring unit for storage of processed patient parameter data in a patient history repository via a network access point coupled to a communication network via wireless communication in a third mode, said third mode being automatically enabled in response to detecting that a wired connection between said communication interface and said communication network is not available; and

a power unit for re-charging a battery in said portable monitoring unit in said second mode.

2. (Currently Amended) A system according to claim 1 wherein:

said communication interface automatically switches between said second and third mode to maintain continuous communication of processed patient parameter data, in response to detection of an operational communication link and

~~said communication interface~~ communicates said processed patient parameter data to:

said image reproduction device for display in said first mode;

said docking station when said portable monitoring unit is docked in

said docking station in said second mode; and

said network access point coupled to said communication network

via wireless communication in said third mode;

without requiring physical removal of said plurality of patient attached sensors.

3. (Original) A system according to claim 2 wherein:

said plurality of patient attached sensors are connected to said data acquisition processor through a cable; and

said communication interface communicates said processed patient parameter data to:

said image reproduction device for display in said first mode;

said docking station when said portable monitoring unit is docked in

said docking station in said second mode; and

said network access point coupled to said communication network

via wireless communication in said third mode;

without requiring physical disconnection of the cable from the data acquisition processor.

4. (Original) A system according to claim 3 wherein:

the cable is connected to the data acquisition processor through a connector; and
said communication interface communicates said processed patient parameter data

to:

said image reproduction device for display in said first mode;

said docking station when said portable monitoring unit is docked in
said docking station in said second mode; and

said network access point coupled to said communication network
via wireless communication in said third mode;

without requiring physical disconnection of the connector from the data acquisition
processor.

5. (Original) A system according to claim 1 wherein said portable monitoring unit
is removable from said docking station in said second mode without disconnection of a
connector.

6. (Original) A system according to claim 1 wherein said portable monitoring unit
is removable from said docking station in said second mode without disconnection of a
cable.

7. (Original) A system according to claim 1 wherein said portable monitoring unit
in said third mode supports at least one of, (a) wear by a patient to support monitoring of
patient parameters during patient movement and (b) portable use by a healthcare worker to
check parameters of multiple patients at different locations.

8. (Currently Amended) A system according to claim 1 wherein said first and
third modes operate concurrently to communicate said processed patient parameter data to
said image reproduction device for display and to said central monitoring station for

storage in a patient history repository via said network access point coupled to said communication network.

9. (Original) A system according to claim 6 wherein said image reproduction device is powered down after a predetermined time interval to conserve power in response to a preprogrammed instruction.

10. (Original) A system according to claim 1 wherein
said communication interface automatically queries said communication network to determine if a second image reproduction device having an image resolution higher than said image reproduction device is present on said communication network and

in a fourth mode, said communication interface communicates said processed patient parameter data to at least one of, (a) a processor for conditioning said processed patient parameter data for display on a said second reproduction device of greater image resolution than said image reproduction device and automatically communicating said conditioned processed patient parameter data to said second reproduction device and (b) a processor for conditioning said processed patient parameter data for display on a mobile tablet style reproduction device.

11. (Currently Amended) A system according to claim 8 10 wherein said communication interface communicates said processed patient parameter data in said fourth mode by at least one of, (i) wireless and (ii) wired, communication.

12. (Original) A system according to claim 1 wherein said processed patient parameter data comprises physiological data including at least one of, (a) electro-cardiograph (ECG) data, (b) blood parameter data, (c) ventilation parameter data, (d) infusion pump related data, (e) invasive or non-invasive blood pressure data, (f) pulse rate data, (g) temperature data and (h) respiratory data.

13. (Original) A system according to claim 1 wherein said first, second and third modes support patient monitoring in a plurality of clinical situations including two or more of, (a) an emergency room, (b) an intensive care unit, (c) a pre-operative, intra-operative and post operative environment, (d) ambulatory patient monitoring using wireless telemetry of patient parameter data, (e) hospital ward monitoring and (f) outside the hospital.

14. (Original) A system according to claim 1 including an interface port for receiving a compact flash device including at least one of, (a) memory and (b) a card supporting WAN (Wide Area Network) or LAN (Local Area Network) access.

15. (Original) A system according to claim 1 wherein said communication interface incorporates a Bluetooth 802.15 compatible wireless transceiver.

16. (Original) A system according to claim 1 wherein said communication interface supports network or local communication using wireless technologies including at least one of, (a) WLAN 802.11b standard compatible communication, (b) 802.11a standard compatible communication, (c) 802.11g standard compatible communication, (d) Bluetooth 802.15 standard compatible communication, and (e) GSM/GPRS standard compatible communication.

17. (Original) A system according to claim 1 wherein said communication interface automatically switches between wired and wireless operation to maintain continuous communication with at least one of, (a) local point-of-care device, (b) a communication network and (c) a central monitoring station, in response to detection of an operational communication link during a communication link search operation.

18. (Original) A system according to claim 1 wherein said portable monitoring unit is assigned to a single particular patient for the duration of the length of stay of said patient in a hospital in multiple hospital care areas.

19. (Original) A system according to claim 1 wherein said communication interface communicates with a wireless location detection system and supports patient location tracking.

20. (Original) A system according to claim 1 wherein said portable monitoring unit is assignable on-demand to a specific patient to enable a spot-check of vital signs of said patient.

21. (Currently Amended) A system for monitoring and processing signal parameters acquired from a patient in multiple operational modes and housed as a portable monitoring unit, comprising:

a data acquisition processor for receiving and processing patient parameter data from a plurality of different patient attached sensors to provide processed patient parameter data;

a communication interface for communicating said processed patient parameter data to:

a first docking station when said portable monitoring unit is docked in said first docking station in a first mode;

a central monitoring station remotely located from said monitoring unit for display of processed patient parameter data via a network access point coupled to a communication network via wireless communication in a second mode, said second mode being automatically initiated in response to determining that said monitoring unit is undocked from said first docking station; and

a second docking station when said portable monitoring unit is docked in said second docking station in said first mode; without requiring physical removal of said plurality of patient attached sensors.

22. (Original) A system according to claim 19 wherein:
said plurality of patient attached sensors are connected to said data acquisition processor through a cable; and
said communication interface communicates said processed patient parameter data to:

a first docking station when said portable monitoring unit is docked in said first docking station in a first mode;
a network access point coupled to a communication network via wireless communication in a second mode; and
a second docking station when said portable monitoring unit is docked in said second docking station in said first mode;
without requiring physical disconnection of the cable from the data acquisition processor.

23. (Original) A system according to claim 20 wherein:
the cable is connected to the data acquisition processor through a connector; and
said communication interface communicates said processed patient parameter data to:

a first docking station when said portable monitoring unit is docked in said first docking station in a first mode;
a network access point coupled to a communication network via wireless communication in a second mode; and
a second docking station when said portable monitoring unit is docked in said second docking station in said first mode;
without requiring physical disconnection of the connector from the data acquisition processor.

24. (Currently Amended) A system for monitoring and processing signal parameters acquired from a patient in multiple operational modes and housed as a portable monitoring unit, comprising:

a data acquisition processor for receiving and processing patient parameter data from a plurality of different patient attached sensors to provide processed patient parameter data;

an image reproduction device for displaying processed patient parameter data;

a communication interface for communicating said processed patient parameter data to:

said image reproduction device for display in a first mode;

a docking station when said portable monitoring unit is docked in said docking station in a second mode, said portable monitoring unit being removable from said docking station in said second mode without disconnection of a connector connecting said plurality of sensors to said patient; and

a second image reproduction device having an image resolution higher than said image reproduction device via a network access point coupled to a communication network via wireless communication in a third mode, said third mode being automatically initiated in response to a determination that said second image reproduction device is present on said communication network; and

a power unit for re-charging a battery in said portable monitoring unit in said second mode.

25. (Currently Amended) A system for monitoring and processing signal parameters acquired from a patient in multiple operational modes and housed as a portable monitoring unit, comprising:

- a data acquisition processor for receiving and processing patient parameter data from a plurality of patient attached sensors to provide processed patient parameter data;
- an image reproduction device for displaying processed patient parameter data;
- a communication interface for communicating said processed patient parameter data to said image reproduction device for display and for concurrently communicating said processed patient parameter data to a central monitoring station via:

- a docking station via wired communication with a communication network when said portable monitoring unit is docked in said docking station in a first mode; and

- a network access point coupled to a communication network via wireless communication in a second mode; said communication interface automatically switching between said first and second mode in order to maintain continuous communication with said central monitoring system
- and

- a power unit for re-charging a battery in said portable monitoring unit in said first mode.

26. (Original) A system according to claim 22 wherein in a third mode, said communication interface communicates said processed patient parameter data to at least one of, (a) a processor for conditioning said processed patient parameter data for display on a display device of greater image resolution than said image reproduction device and (b) a processor for conditioning said processed patient parameter data for display on a mobile tablet style reproduction device.

27. (Currently Amended) A method for monitoring and processing signal parameters acquired from a patient in multiple operational modes and housed as a portable monitoring unit, comprising the steps of:

receiving and processing patient parameter data from a plurality of patient attached sensors to provide processed patient parameter data;

communicating said processed patient parameter data to:

an image reproduction device for display in a first mode;

a docking station when said portable monitoring unit is docked in said docking station in a second mode; and

a central monitoring system remotely located from said monitoring unit for storage in a patient history repository via a network access point coupled to a communication network via wireless communication in a third mode, said third mode being automatically enabled in response to detecting that a wired connection between said communication interface and said communication network is not available;

initiating display of said processed patient parameter data; and
re-charging a battery in said portable monitoring unit in said second mode.